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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,545	02/06/2002	Steven B. Kenney	AAI-14131	8015

7590

08/25/2004

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EXAMINER

TO, TOAN C

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,545

Applicant(s)

KENNEY ET AL.

Examiner

Toan C To

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 and 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 5-9, 11 and 14-17 rejected under 35 U.S.C. 102(e) as being anticipated by Nakashima et al (U.S. 6,547,275).

Nakashima et al discloses a vehicular inflatable restraint system inflator device comprising: a housing (403), the housing having a disk form and defining a first chamber (450), the first chamber in a static state containing a quantity of a first gas generant material (452) ignitable to produce first combustion products including a first inflation gas, the housing (403) having at least a first and a second row of spaced apart gas exit ports (410a, 410b) adapted to permit passage of the first inflation gas from the inflator device into an associated inflatable airbag cushion; the first chamber (450) containing at least one inflation gas-permeable treatment element (425) disposed between the quantity of the first gas generant material (452) and the at least two rows of spaced apart gas exit ports (410a, 410b), wherein passage of gas through the treatment element (425) results in treatment thereof; the first chamber (450) also containing a second chamber (460); the second chamber (460) in a static state having an enclosed

volume containing a quantity of a second gas generant material (462) ignitable to produce second combustion products; the second chamber (462) having a lid closure (404) adapted to permit fluid communication of the second combustion products with the contents of the first chamber (450); a first initiator (451) device operatively associated with the first chamber (450); and a second initiator (461) device operatively associated with the second chamber (460); wherein the inflator device discharging sufficient inflation gas to inflate a passenger inflatable airbag cushion; a rupturable seal (429) closing the gas exit ports (410a, 410b) to mass flow in a static state.

As to claims 5-7, Nakashima et al discloses a vehicular inflatable restraint system inflator, wherein the housing has a length to diameter ratio in a range of at least **about** and no more than **about** 0.8. (Although, the length to diameter ratio of housing 403 as disclosed by Nakashima et al is probably less than 0.6, but it is considered "**about** 0.6", e.g. 0.4 is considered to be **about** 0.6).

As to claims 8-9, and 11, Nakashima et al discloses a vehicular inflatable restraint system inflator device, wherein each of the first and second rows of spaced apart gas exit ports (410a, 410b) comprises a plurality of holes with the holes (410a) of the first row offset relative to the holes (410b) of the second row; wherein the holes (410a) of at least the first row includes a plurality of holes of a first diameter and a plurality of holes (410b) of a second diameter and wherein the ratio of the first diameter to the second diameter is in a range of about 1.2 to about 1.6; wherein the first row includes at least first and second adjacent holes (410a, 410b) wherein the first adjacent hole is of the first diameter and the second adjacent hole is of the second diameter.

As to claim 14, Nakashima et al discloses a vehicular inflatable restraint system inflator device, wherein the at least one inflation gas-permeable treatment element (425) is spaced apart from the at least two rows of spaced apart gas exit ports (410a, 410b) by a plenum.

As to claim 15-16; Nakashima et al discloses a vehicular inflatable restraint system inflator device, wherein the first gas generant material and the second gas generant material (452, 462) is each a pyrotechnic material.

As to claim 17, Nakashima et al discloses a vehicular inflatable restraint system inflator device, wherein the first and second gas generant materials (452, 462) differ in at least one aspect selected from the group consisting of: composition, form and size (see column 21, lines 45-46)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 4, 13, 18-19, 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima et al in view of Rink et al (U.S. 6,652,683).

With respect to claim 18, Nakashima et al further discloses a first igniter assembly operatively associated with the first chamber (450), the first igniter assembly comprising a first initiator device (451) and a supply of igniter material (408) housed in a

first igniter assembly housing (426), wherein actuation of the first initiator produces a discharge in reaction initiating communication with at least a portion of the supply of the igniter material (408) housed within the first igniter assembly housing (426) and wherein the first igniter assembly housing (426) includes a plurality of openings (437) to permit passage of igniter material reaction products therethrough and into reaction initiating communication with at least a portion of the quantity of the first gas generant material (452) contained in the first chamber; wherein the first igniter assembly housing is sized to correspond the supply of igniter material housed therewithin.

Nakashima et al discloses every element of the invention as discussed above except that the device is provided a gas output in a range of about 3-4.5 moles of inflation gas.

Rink et al teaches the invention wherein the inflation device is provided a gas output in a range of about 3-4.5 moles of inflation gas (see column 8, line 21).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the passenger side inflation device of Nakashima et al as taught by Rink et al to order to reduce cost of generant material, but sufficiently and effectively provide inflation gas output for protecting occupant.

5. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima et al in view of Cunningham et al (U.S. 5,443,286).

Nakashima et al discloses every element of the invention as discussed above except that the housing comprising a holes arrangement, wherein the holes arrangement comprising a first row included at least first and second adjacent holes,

and the first adjacent hole is of the first diameter and the second adjacent hole is of the second diameter.

Cunningham et al teaches the invention wherein the housing comprising a holes arrangement, wherein the holes arrangement comprising a first row included at least first and second adjacent holes (20), and the first adjacent hole is of the first diameter and the second adjacent hole is of the second diameter (see figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflator housing of Nakashima et al by using the teaching of Cunningham et al in order to allow the generating gas evenly and smoothly escaping from the inflator to inflate the airbag such that sufficiently protecting occupant.

6. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima et al and Rink et al and further in view of Cunningham et al (U.S. 5,443,286).

The combination of Nakashima et al and Rink et al discloses and teaches every element of the invention as discussed above except that the housing comprising a holes arrangement, wherein the holes arrangement comprising a first row included at least first and second adjacent holes, and the first adjacent hole is of the first diameter and the second adjacent hole is of the second diameter.

Cunningham et al teaches the invention wherein the housing comprising a holes arrangement, wherein the holes arrangement comprising a first row included at least first and second adjacent holes (20), and the first adjacent hole is of the first diameter and the second adjacent hole is of the second diameter (see figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the inflator housing of Nakashima et al by using the teaching of Cunningham et al in order to allow the generating gas evenly and smoothly escaping from the inflator to inflate the airbag such that sufficiently protecting occupant.

Response to Arguments

7. Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan C To whose telephone number is (703) 306-5951. The examiner can normally be reached on Mon-Fri (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (703) 308-2089. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-

1113.

T To
August 20, 2004

